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THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Yoshinari MORIMOTO

On Appeal from Group: 3735

Application No.: 10/625,778

Examiner: J. HUFFMAN

Filed: July 24, 2003

Docket No.: 116571

For: INK JET PRINTER IN WHICH A BEST TEST PATTERN PRINTED ON A  
RECORDING MEDIUM IS AUTOMATICALLY SELECTED

**SUPPLEMENTAL REPLY BRIEF**

Director of the U.S. Patent and Trademark Office  
Washington, D.C. 20231

Sir:

The following remarks are directed to the arguments raised in the Examiner's Supplemental Answer dated August 31, 2007. Appellant respectfully requests reconsideration and prompt reversal of the outstanding rejections at least in light of the following remarks.

**REMARKS**

Claims 1, 3, 5, 6, and 23 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,454,390 (Takahashi) in view of U.S. Patent No. 6,215,562 (Michel).

In Michel, a Gray Balance page is printed (FIG. 3A, step 310). Then, the user selects which of the patches is closest to the gray that surrounds all of the patches (C7/L1-2). Upon selection, a new Gray Balance page is printed on a new sheet with the previously selected patch as the middle patch (C7/L3-6 and FIG. 3A, Step 312). This process may be repeated (C7/L6-7). The reason that this iterative process is used is to allow a user to visually select the patch (Abstract, C3/L18-C4/L42, C7/L1-2, and C8/L2-14). Before the Gray Balance page is reprinted on the separate page, the user is required to enter a selection indicating which of the patches is closest to the gray that surrounds all of the patches (C7/L19-42 and C8/L2-14).

Michel deals with measuring gray balance, which is easily distinguishable by the eye. The reason that an iterative process is used in Michel is to allow a user, who's ability to

accurately detect differences between patches is much less accurate than expensive measuring instruments, to visually select the patch (C3/L18-C4/L42).

Appellant has previously argued that the skilled artisan would not have been motivated to modify the method of Takahashi to incorporate an iterative process, as an iterative process would be unnecessary for use with the relatively expensive measuring instrument of Takahashi. In refuting this argument, the Supplemental Examiner's Answer alleges that the sophistication and cost of Takahashi's sensor is "respectfully irrelevant." However, sophistication and cost are directly relevant to what the skilled artisan would have understood from the explicit disclosure of Michel. The skilled artisan's understanding is central to the obviousness inquiry. *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350, slip op. at 13-15 (U.S. April 30, 2007).

The abstract of Michel states that "[a] calibration apparatus and method for a color printer that allows a user to calibrate a printer without the use of expensive measuring instruments and prior user training is provided" (emphasis added). Column 1, lines 7-10, states that "calibration is performed in such a way that prior training and expensive equipment are not required" (emphasis added). Michel further states that it "describes the goals, techniques and a proposed development plan for a calibration system that involves neither a densitometer nor a scanner but that uses visual comparisons by an untrained user" (C1/L30-34, emphasis added). In fact, the entire "Background of the Invention" of discusses in detail the perceived problems with systems that require extensive training or use instrument based calibration. Michel's solution is to use iterative processing as a substitute for the "expensive measuring instruments" (C3/L18-47).

Takahashi, on the other hand, deals with the adjustment of dot forming positions (see, e.g., C1/L10-20). In order to correctly recognize discrete variations in dot forming positions, dot shifts on the order of less than a quarter of a single dot must be recognized (see C39/L53 - C40/L7 disclosing the recognition of an offset of less than 0.25 dots may be recognized). Within the context of Michel's disclosure discussed above, the skilled artisan would have immediately recognized the sensor 30 of Takahashi as just such an "expensive measuring instrument." In response to the statement in the Supplemental Examiner's Answer that there is no teaching in Takahashi that the sensor is expensive or sophisticated (Supplemental Examiner's Answer, p. 3), even if the sensor's accuracy is ignored, it is at least indisputable that the sensor of 30 of Takahashi is relatively more expensive than no sensor at all (as in Michel).

Thus, having been aware of both Takahashi and Michel, the skilled artisan would have recognized at least the following two points: (1) The device of Takahashi includes an expensive measuring instrument (sensor 30), and therefore it cannot benefit from a modification that would implement a method specifically designed for use in a system without an expensive measuring instrument and intended to compensate for the lack of an expensive measuring instrument. (2) The sensor 30 of Takahashi is accurate enough to detect dot shifts on the order of less than a quarter of a single dot, and therefore the sensor 30 would not benefit from a more time consuming iterative process intended for use with much less discriminating sensor (i.e., the untrained human eye).

As a result of at least the above, the skilled artisan would not have been motivated to modify the method of Takahashi to incorporate an iterative process, as an iterative process would be unnecessary for use with the relatively expensive measuring instrument of Takahashi. Thus, the Examiner's Supplemental Answer fails to provide any explicit "articulated reasoning with a rational underpinning" to support its legal conclusion of obviousness. *KSR*, No. 04-1350, slip op. at 14, citing *In re Khan*, 441 F.3d 997, 998 (Fed. Cir. 2006).

#### CONCLUSION

The Honorable Board is requested to reverse the rejections set forth in the Final Rejection and direct the Examiner to pass this application to issue.

Respectfully submitted,

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JAO:JOC/lbg

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